



1151 CAGGCCGGAG CCGAGCAGCT GAAGGCACTC GCTGGGTCAT GTGGTTCCGA  
1201 GATGGCAAGT TCTCAGTGGT GTGTGTGGAG AAGCTCATGC CGCTGAGCTC  
1251 CTTCTGCAGT GCATTCCACC AGGCCACCTA CAACAAGCAG CCCATGTACC  
1301 GCAAAGCCAT CTACGAAGTC CTCCAGGTGG CCAGCAGCCG TGCCGGAAG  
1351 CTGTTTCCAG CTTGCCATGA CAGTGATGAA AGTGACAGTG GCAAGGCTGT  
1401 GGAAGTGCAG AACAAGCAGA TGATTGAATG GGCCCTCGGT GGCTTCCAGC  
1451 CCTCGGGTCC TAAGGGCCTG GAGCCACCAG AAGAAGAGAA GAATCCTTAC  
1501 AAGGAAGTTT ACACCGACAT GTGGGTGGAG CCTGAAGCAG CTGCTTACGC  
1551 CCCACCCCA CCAGCCAAGA AACCCAGAAA GAGCACAACA GAGAAACCTA  
1601 AGGTCAAGGA GATCATTGAT GAGCGCACAA GGGAGCGGCT GGTGTATGAG  
1651 GTGCGCCAGA AGTGCAGAAA CATCGAGGAC ATTTGTATCT CATGTGGGAG  
1701 CCTCAATGTC ACCCTGGAGC ACCCACTCTT CATTGGAGGC ATGTGCCAGA  
1751 ACTGTAAGAA CTGCTTCTTG GAGTGTGCTT ACCAGTATGA CGACGATGGG  
1801 TACCAGTCCT ATTGCACCAT CTGCTGTGGG GGGCGTGAAG TGCTCATGTG  
1851 TGGGAACAAC AACTGCTGCA GGTGCTTTTG TGTGAGTGT GTGGATCTCT  
1901 TGGTGGGGCC AGGAGCTGCT CAGGCAGCCA TTAAGGAAGA CCCCTGGAAC  
1951 TGCTACATGT GCGGGCATAA GGGCACCTAT GGGCTGCTGC GAAGACGGGA  
2001 AGACTGGCCT TCTCGACTCC AGATGTTCTT TGCCAATAAC CATGACCAGG  
2051 AATTTGACCC CCCAAAGGTT TACCCACCTG TGCCAGCTGA GAAGAGGAAG  
2101 CCCATCCGGG TGCTGTCTCT CTTTGATGGG ATTGCTACAG GGCTCCTGGT  
2151 GCTGAAGGAC CTGGGCATCC AAGTGGACCG CTACATTGCC TCCGAGGTGT  
2201 GTGAGGACTC CATCACGGTG GGCATGGTGC GGCACCAGGG AAAGATCATG  
2251 TACGTCGGGG ACGTCCGCAG CGTCACACAG AAGCATATCC AGGAGTGGGG  
2301 CCCATT<sup>C</sup>GAC<sup>C</sup>TTGGTGATTG GAGGCAGTCC CTGCAATGAC CT<sup>C</sup>TCCATTG

FIG. 1A-2



2351 TCAACCCTGC CCGCAAGGGA CTTTATGAGG GTACTGGCCG CCTCTTCTTT  
2401 GAGTTCTACC GCCTCCTG<sup>C</sup><sub>3</sub>GA TGATGCGCGG CCCAAGGAGG GAGATGATCG  
2451 CCCCTTCTTC TGGCTCTTTG AGAATGTGGT GGCCATGGGC GTTAGTGACA  
2501 AGAGGGACAT CTCGGATTT CTTGAGTCTA ACCCCGTGAT GATTGACGCC  
2551 AAAGAAGTGT CTGCTGCACA CAGGGCCCGT TACTTCTGGG GTAACCTTCC  
2601 TGGCATGAAC AGGCCTTTGG CATCCACTGT GAATGATAAG CTGGAGCTGC  
2651 AAGAGTGTCT GGAGCACGGC AGAATAGCCA AGTTCAGCAA AGTGAGGACC  
2701 ATTACCACCA GGTCAAATC TATAAAGCAG GGCAAAGACC AGCATTTCCC  
2751 CGTCTTCATG AACGAGAAGG AGGACATCCT GTGGTGCACT GAAATGGAAA  
2801 GGGTGTITGG CTTCCCCGTC CACTACACAG ACGTCTCCAA CATGAGCCGC  
2851 TTGGCGAGGC AGAGACTGCT GGGCCGATCG TGGAGCGTGC CGGTCATCCG  
2901 CCACCTCTTC GCTCCGCTGA AGGAATATTT TGCTTGTGTG TAAGGGACAT  
2951 GGGGGCAAAC TGAAGTAGTG ATGATAAAAA AGTTAAACAA ACAAACAAAC  
3001 AAAAAACAAA ACAAACAAT AAAACACCAA GAACGAGAGG ACGGAGAAAA  
3051 GTTCAGCACC CAGAAGAGAA AAAGGAATTT AAAGCAAACC ACAGAGGAGG  
3101 AAAACGCCGG AGGGCTTGGC CTTGCAAAG GGTGGACAT CATCTCCTGA  
3151 GTTTTCAATG TTAACCTTCA GTCCTATCTA AAAAGCAAAA TAGGCCCTC  
3201 CCCTTCTTCC CCTCCGGTCC TAGGAGGCGA ACTTTTTGTT TTCTACTCTT  
3251 TTTGAGAGG GTTTTCTGTT TGTTTGGGTT TTTGTTTCTT GCTGTGACTG  
3301 AAACAAGAGA GTTATTGCAG CAAATCAGT AACAACAAA AGTAGAAATG  
3351 CCTTGGAGAG GAAAGGGAGA GAGGGAAAAT TCTATAAAA CTAAATAT  
3401 TGGTTTTTTT TTTTTTCTT TTTCTATATA TCTCTTGGT TGTCTCTAGC  
3451 CTGATCAGAT AGGAGCACAA ACAGGAAGAG AATAGAGACC CTCGGAGGCA  
3501 GAGTCTCCTC TCCCACCCCC CGAGCAGTCT CAACAGCACC ATTCTGGTC

FIG. 1A-3



Mouse Dnmt3b1 DNA Sequence

1 GAATTCCGGG CGCCGGGGTT AAGCGGCCCA AGTAAACGTA GCGCAGCGAT  
51 CGGCGCCCGA GATTCCGGA CCCGACACTC CGGCGCGCCC GCCGGCCAGG  
101 ACCCGCGGCG CGATCGCGGC GCCGCGCTAC AGCCAGCCTC ACGACAGGCC  
151 CGCTGAGGCT TGTGCCAGAC CTTGGAAACC TCAGGTATAT ACCTTTCCAG  
201 ACGCGGGATC TCCCTCCCC CATCCATAGT GCCTTGGGAC CAAATCCAGG  
251 GCCTTCTTTC AGGAAACAAT GAAGGGAGAC AGCAGACATC TGAATGAAGA  
301 AGAGGGTGCC AGCGGGTATG AGGAGTGCAT TATCGTTAAT GGGAACTTCA  
351 GTGACCAGTC CTCAGACACG AAGGATGCTC CCTCACCCCC AGTCTTGGAG  
401 GCAATCTGCA CAGAGCCAGT CTGCACACCA GAGACCAGAG GCCGCAGGTC  
451 AAGCTCCCGG CTGTCTAAGA <sup>G</sup>GGAGGTCTC <sup>G</sup>CAGCCTTCTG AATTACACGC  
501 AGGACATGAC AGGAGATGGA GACAGAGATG ATGAAGTAGA TGATGGGAAT  
551 GGCTCTGATA TTCTAATGCC AAAGCTCACC CGTGAGACCA AGGACACCAG  
601 GACGCGCTCT GAAAGCCCGG CTGTCCGAAC CCGACATAGC <sup>G</sup>AATGGGACCT  
651 CCAGCTTGA GAGGCAAAGA GCCTCCCCCA <sup>G</sup>AATCACCCG AGGTCGGCAG  
701 GGCCGCCACC ATGTGCAGGA GTACCCTGTG GAGTTTCCGG CTACCAGGTC  
751 TCGGAGACGT CGAGCATCGT CTTAGCAAG CACGCCATGG TCATCCCCTG  
801 CCAGCGTCCA CTTATGGAA GAAGTGACAC CTAAGAGCGT CAGTACCCCA  
851 TCAGTTGACT TGAGCCAGGA TGGAGATCAG GAGGGTATGG ATACCACACA  
901 GGTGGATCCA GAGAGCAGAG <sup>G</sup>ATGGATACAG CACAGAGTAT <sup>G</sup>CAGATGATA  
951 AAGAGTTTGG AATAGGTGAC CTCGTGTGGG GAAAGATCAA GGGCTTCTCC  
1001 TGGTGGCCTG CCATGGTGGT GTCCTGGAAA GCCACCTCCA <sup>G</sup>AGCGACAGGC

FIG. 1B-1



1051 CATGCCCGGA ATGCGCTGGG TACAGTGGTT TGGTGATGGC AAGTTTTCTG  
1101 AGATCTCTGC TGACAAACTG GTGGCTCTGG GGCTGTTTACG CCAGCACTTT  
1151 AATCTGGCTA CCTTCAATAA GCTGGTTTTCT TATAGGAAGG CCATGTACCA  
1201 CACTCTGGAG AAAGCCAGGG TTCGAGCTGG CAAGACCTTC TCCAGCAGTC  
1251 CTGGAGAGTC ACTGGAGGAC CAGCTGAAGC CCATGCTGGA GTGGGCCCAC  
1301 GGTGGCTTCA AGCCTACTGG GATCGAGGGC CTCAAACCCA ACAAGAAGCA  
1351 ACCAGTGGTT AATAAGTCGA AGGTGCGTGG TTCAGACAGT AGGAACTTAG  
1401 AAGCCAGGAG ACGCGAGAAC AAAAGTCGAA GACGCACAAC CAATGACTCT  
1451 GCTGCTTCTG AGTCCCCCCC ACCCAAGCGC CTCAAGACAA ATAGCTATGG  
1501 CGGGAAGGAC CGAGGGGAGG ATGAGGAGAG CCGAGAACGG ATGGCTTCTG  
1551 AAGTCACCAA CAACAAGGGC AATCTGGAAG ACCGCTGTTT GTCCTGTGGA  
1601 AAGAAGAACC CTGTGTCTTT CCACCCCTC TTTGAGGGTG GGCTCTGTCA  
1651 GAGTTGCCCG GATCGCTTCC TAGAGCTCTT CTACATGTAT GATGAGGACG  
1701 GCTATCAGTC CTACTGCACC GTGTGCTGTG AGGGCCGTGA ACTGCTGCTG  
1751 TGCAGTAACA CAAGCTGCTG CAGATGCTTC TGTGTGGAGT GTCTGGAGGT  
1801 GCTGGTGGGC GCAGGCACAG CTGAGGATGC CAAGCTGCAG GAACCCTGGA  
1851 GCTGCTATAT GTGCCTCCCT CAGCGCTGCC ATGGGGTCTT CCGACGCAGG  
1901 AAAGATTGGA ACATGCGCCT GCAAGACTTC TTCACTACTG ATCCTGACCT  
1951 GGAAGAATTT GAGCCACCCA AGTTGTACCC AGCAATTCCT GCAGCCAAAA  
2001 GGAGGCCCAT TAGAGTCTG TCTCTGTTTG ATGGAATTGC AACGGGGTAC  
2051 TTGGTGCTCA AGGAGTTGGG TATTAAG<sup>T</sup><sub>3</sub>G GAAAAGTACA TTGCCTCCGA  
2101 AGTCTGTGCA GAGTCCATCG CTGTGGGAAC TGTTAAGCAT GAAGGCCAGA  
2151 TCAAATATGT CAATGACGTC CGGAAAATCA CCAAGAAAAA TATTGAAGAG  
2201 TGGGGCCCGT TCGACTTGGT GATTGGTGGG AGCCCATGCA ATGATCTCTC

FIG. 1B-2



2251 TAACGTCAAT CCTGCCCCGA AAGGTTTATA TGAGGGCACA GGAAGGCTCT  
2301 TCTTCGAGTT TTACCACTTG CTGAATTATA CCCGCCCCAA GGAGGGCGAC  
2351 AACCGTCCAT TCTTCTGGAT GTTCGAGAAT GTTGTGGCCA TGAAAGTGAA  
2401 TGACAAGAAA GACATCTCAA GATTCTGGC ATGTAACCCA GTGATGATCG  
2451 ATGCCATCAA GGTGTCTGCT GCTCACAGGG CCCGGTACTT CTGGGGTAAC  
2501 CTACCCGGAA TGAACAGGCC CGTGATGGCT TCAAAGAATG ATAAGCTCGA  
2551 GCTGCAGGAC TGCCTGGAGT TCAGTAGGAC AGCAAAGTTA AAGAAAGTGC  
2601 AGACAATAAC CACCAAGTCG AACTCCATCA GACAGGGCAA AAACCAGCTT  
2651 TTCCCTGTAG TCATGAATGG CAAGGACGAC GTTTTGTGGT GCACTGAGCT  
2701 CGAAAGGATC TTCGGCTTCC CTGCTCACTA CACGGACGTG TCCAACATGG  
2751 GCCGCGGGCG CCGTCAGAAG CTGCTGGGCA GGTCTGGAG TGTACCGGTC  
2801 ATCAGACACC TGTTCGCCCC CTTGAAGGAC TACTTTGCCT GTGAATAGTT  
2851 CTACCCAGGA CTGGGGAGCT CTCGGTCAGA GCCAGTGCCC AGAGTCACCC  
2901 CTCCCTGAAG GCACCTCACC TGTCCCTTTT TTAGCTCACC TGTGTGGGGC  
2951 CTCACATCAC TGTACCTCAG CTTTCTCCTG CTCAGTGGGA GCAGAGCCTC  
3001 CTGGCCCTTG CAGGGGAGCC CCGGTGCTCC CTCGGTGTGC ACAGCTCAGA  
3051 CCTGGCTGCT TAGAGTAGCC CGGCATGGTG CTCATGTTCT CTTACCCTGA  
3101 AACTTTAAAA CTTGAAGTAG GTAGTAAGAT GGCTTTCTTT TACCCTCCTG  
3151 AGTTTATCAC TCAGAAGTGA TGGCTAAGAT ACCAAAAAAA CAAACAAAAA  
3201 CAGAAACAAA AAACAAAAAA AAACCTCAAC AGCTCT<sup>C</sup>TTTA GTACTCAGGT  
3251 TCATGCTGCA AAATCACTTG AGATTTTGT TTTAAGTAAC CCGTGT<sup>C</sup>CTCA  
3301 CATTGCTGG AGGATGCTAT TGTGAATGTG GGCTCAGATG AGCAAGGTCA  
3351 AGGGGCCAAA AAAAATTCCC CCTCTCCCC CAGGAGTATT TGAAGATGAT  
3401 GTTTATGGTT TAAGTCTTCC TGGCACCTTC CCCTTGCTTT GGTACAAGGG

FIG. 1B-3



1078 GTACGAGGAC GGCCGGGGCT TTGGCATTGG GGAGCTGGTG TGGGGGAAAC  
1128 TGCGGGGCTT CTCCTGGTGG CCAGGCCGCA TTGTGTCTTG GTGGATGACG  
1178 GGCCGGAGCC GAGCAGCTGA AGGCACCCGC TGGGTCATGT GGTTCGGAGA  
1228 CGGCAAATTC TCAGTGGTGT GTGTTGAGAA GCTGATGCCG CTGAGCTCGT  
1278 TTTGCAGTGC GTTCCACCAG GCCACGTACA ACAAGCAGCC CATGTACCGC  
1328 AAAGCCATCT ACGAGGTCCT GCAGGTGGCC AGCAGCCGCG CGGGGAAGCT  
1378 GTTCCCGGTG TGCCACGACA GCGATGAGAG TGACACTGCC AAGGCCGTCC  
1428 AGGTGCAGAA CAAGCCCATG ATTGAATGGG CCCTGGGGGG CTTCCAGCCT  
1478 TCTGGCCCTA AGGGCCTGGA GCCACCAGAA GAAGAGAAGA ATCCCTACAA  
1528 AGAAGTGTAC ACGGACATGT GGGTGAACC TGAGGCAGCT GCCTACGCAC  
1578 CACCTCCACC AGCCAAAAAG CCCCGGAAGA GCACAGCGGA GAAGCCCAAG  
1628 GTCAAGGAGA TTATTGATGA GCGCACAAGA GAGCGGTGG TGTACGAGGT  
1678 GCGGCAGAAG TGCCGGAACA TTGAGGACAT CTGCATCTCC TGTGGGAGCC  
1728 TCAATGTTAC CCTGGAACAC CCCCTCTTCG TTGAGGAAT GTGCCAAAC  
1778 TGCAAGAACT GCTTTCTGGA GTGTGCGTAC CAGTACGACG ACGACGGCTA  
1828 CCAGTCCTAC TGCACCATCT GCTGTGGGGG CCGTGAGGTG CTCATGTGCC  
1878 GAAACAACAA CTGCTGCAGG TGCTTTTGCG TGGAGTGTGT GGACCTCTTG  
1928 GTGGGGCCGG GGGCTGCCCA GGCAGCCATT AAGGAAACC CCTGGAAGT  
1978 CTACATGTGC GGGCACAAGG GTACCTACGG GCTGCTGCGG CGGCGAGAGG  
2028 ACTGGCCCTC CCGGCTCCAG ATGTTCTTCG CTAATAACCA CACCAGGAA  
2078 TTTGACCCTC CAAAGGTTTA CCCACCTGTC CCAGCTGAGA AGAGGAAGCC  
2128 CATCCGGGTG CTGTCTCTCT TTGATGGAAT CGCTACAGGG CTCCTGGTGC  
2178 TGAAGGACTT GGGCATTACG GTGGACCGCT ACATTGCCTC GGAGGTGTGT

FIG. 1C-2

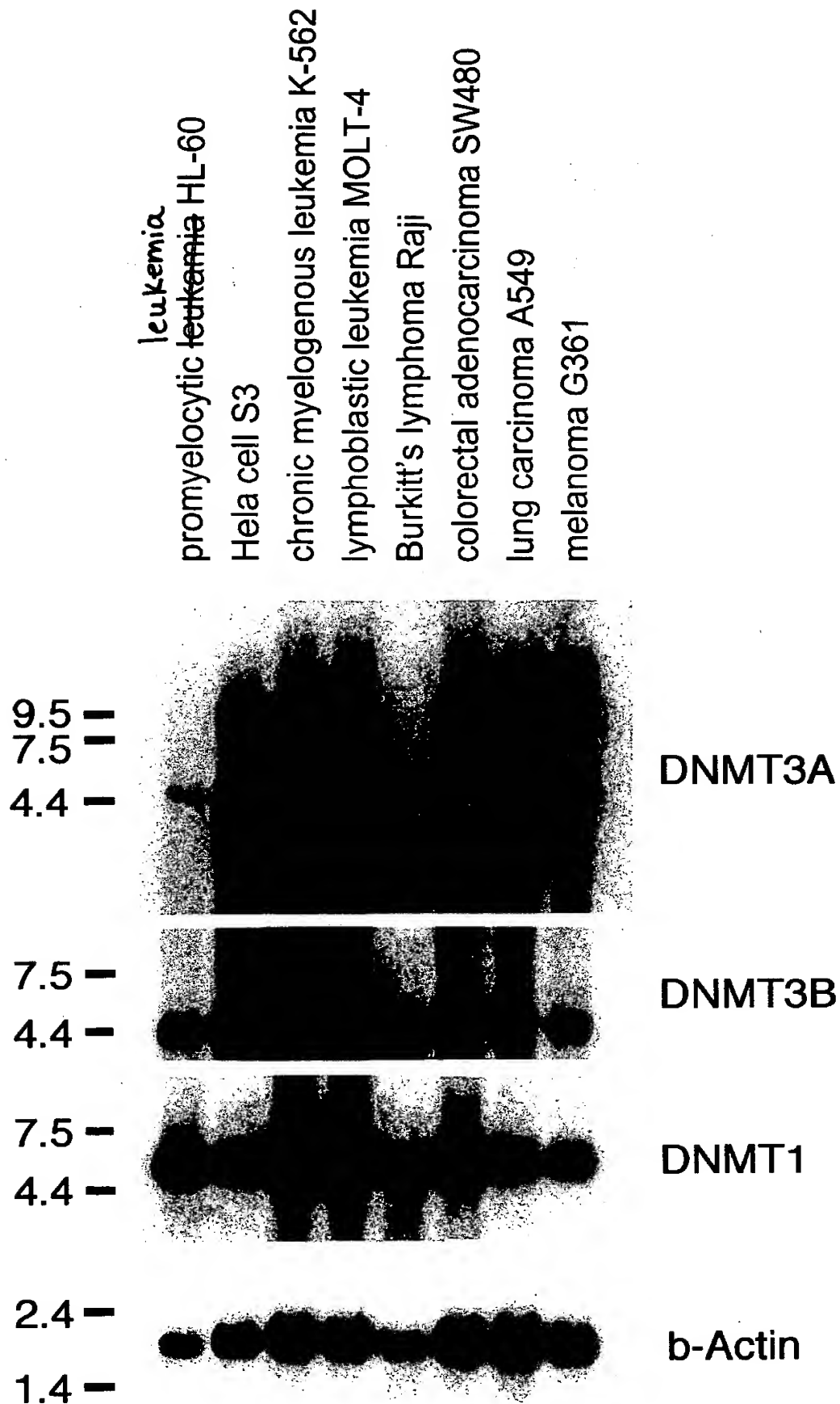


FIG.10